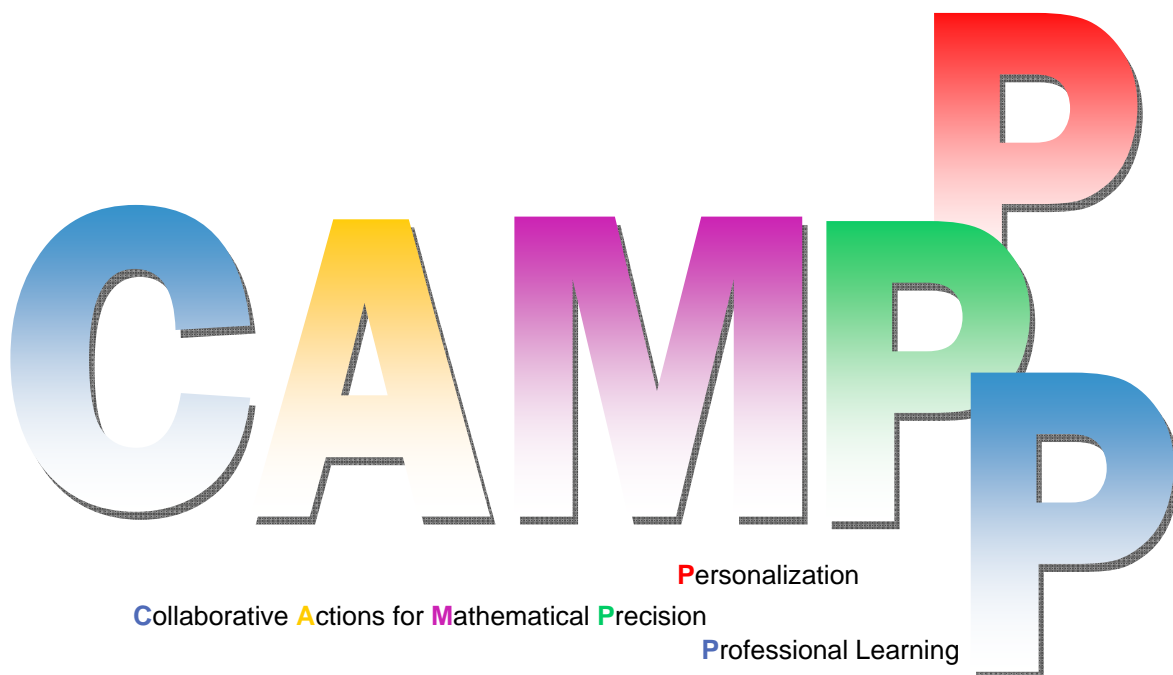


# *Welcome to*



*Kempfenfelt Conference Centre  
Barrie, Ontario  
Nottawasaga Convention Centre  
Alliston, Ontario*

*August 15<sup>th</sup> – 19<sup>th</sup>, 2011  
and beyond...*

*Sponsored by the Ministry of Education, Curriculum and Assessment Policy Branch*



## Goals for GAINS Math CAMPPP 2011

### **Participants leave CAMPPP:**

- ☐ more knowledgeable about proportional reasoning and algebraic thinking and better able to create lesson learning goals, adjust learning activities and develop success criteria in those areas with big ideas in mind;
- ☐ with a deeper understanding of student development in proportional reasoning and algebraic thinking;
- ☐ more aware of strategies for differentiating instruction in the mathematics classroom based on student differences;
- ☐ with an enhanced set of skills for using probing questions and descriptive feedback, whether on the spot or with more time to consider responses, to improve student learning;
- ☐ with strategies for supporting students to engage in effective mathematical discussions with their peers; and
- ☐ with an enhanced set of skills for effectively participating in collegial inquiry into mathematics teaching practice with colleagues
- ☐

[check at least two and add at least one of your own]

### **I leave CAMPPP with a commitment to:**

- ☐ adjust a previously taught lesson to elicit more diverse thinking and broader success, and notice and reflect on how my students respond to changes;
- ☐ adjust a previously taught lesson to better highlight big ideas in the lesson goal, lesson activity and success criteria, and notice and reflect on how my students respond to the changes;
- ☐ study my feedback to students in a particular situation, decide how it could be improved, and use that thinking on a future occasion, and notice and reflect on how my students respond to the changes;
- ☐ co-plan and/or co-teach a math lesson with a colleague; and
- ☐ ....
- ☐ ...

## Important Terms

**achievement chart**<sup>1</sup>. A standard, province-wide guide to be used by teachers to make judgements about student work based on clear performance standards.

**assessment**<sup>1</sup>. The process of gathering, from a variety of sources, information that accurately reflects how well a student is achieving the curriculum expectations in a subject or course.

**assessment as learning**<sup>1</sup>. The process of developing and supporting student metacognition. Students are actively engaged in this assessment process: that is, they monitor their own learning; use assessment feedback from teacher, self, and peers to determine next steps; and set individual learning goals. Assessment *as* learning requires students to have a clear understanding of the learning goals and the success criteria. Assessment as learning focuses on the role of the student as the critical connector between assessment and learning.

**assessment for learning**<sup>1</sup>. The ongoing process of gathering and interpreting evidence about student learning for the purpose of determining where students are in their learning, where they need to go, and how best to get there. The information gathered is used by teachers to provide feedback and adjust instruction and by students to focus their learning. Assessment for learning is a high-yield instructional strategy that takes place while the student is still learning and serves to promote learning.

**assessment of learning**<sup>1</sup>. The process of collecting and interpreting evidence for the purpose of summarizing learning at a given point in time, to make judgements about the quality of student learning on the basis of established criteria, and to assign a value to represent that quality. The information gathered may be used to communicate the student's achievement to parents, other teachers, students themselves, and others. It occurs at or near the end of a cycle of learning.

**learning goals**. Brief statements that describe for a student what he or she should know and do with respect to a mathematical concept. These should be based on mathematical process and content curriculum expectations, and connected to a big idea or more fundamental essential understanding.

*Learning goals should be expressed in language that students understand.*

*Sometimes it may be appropriate to reveal the learning goal at the outset of the learning and other times it may be appropriate to reveal the learning goal towards the end of the learning experience.*

**success criteria**. Descriptions of successful attainment of learning goals (i.e. 'look fors' for successful learning) developed by teachers that focus on important mathematics.

*Success criteria reflect the learning goal which is based on mathematical process and content expectations and draws on significant traits or characteristics identified in the achievement chart, e.g. the use of critical and creative thinking skills and/or processes the conveying of meaning through various forms.*

<sup>1</sup> Ontario Ministry of Education (2010). Growing Success: Assessment, Evaluation and Reporting in Ontario Schools (p.143)

## What important mathematics do we need to know?

Big ideas are one lens through which we can explore important mathematics.

### Proportional Reasoning

*Big Ideas as proposed by Dr. Marian Small*

#### BIN1

A number tells how many or how much.

*Usually we use numbers to give us the sense of the size of something.*

#### BIN2

Classifying numbers or numerical relationships provides information about the characteristics of the numbers or the relationship.

*Sometimes if you know a little about a number or relationship, you know more than you realized.*

#### BIN3

There are many equivalent representations for a number or numerical relationship. Each representation may emphasize something different about that number or relationship.

*There is usually more than one way to show a number or relationship and each of those ways might make something more obvious about that number or relationship.*

#### BIN4

Numbers are compared in many ways. Sometimes they are compared to each other; other times, they are compared to benchmark numbers.

*Numbers can be compared in different ways - sometimes to each other and sometimes to benchmark numbers.*

#### BIA2

Comparing mathematical relationships helps us see that there are classes of relationships with common characteristics and helps us describe each member of the class.

*Groups of functions or relationships go together because they behave in similar ways. Knowing about the group helps us know a bit about each member of the group.*

#### BIM2

Knowing the measurements of one shape can sometimes provide information about measurements of another shape.

*Sometimes two shapes are related, so knowing dimensions of one shape allows you to figure out dimensions of the other.*

# What important mathematics do we need to know?

## Patterning and Algebra

Algebraic reasoning is a process of describing, analyzing, and generating mathematical relationships which may represent real world phenomena.

Comparing mathematical relationships helps us see that there are different types of relationships and provides insight into each type.

Different representations of relationships (e.g., numeric, graphic, geometric, algebraic, verbal, concrete/pictorial) highlight different characteristics or behaviours, and can serve different purposes (e.g. comparing representations supports a deeper understanding of the connections between representations and the mathematical relationship)

Limited information about a mathematical relationship can sometimes, but not always, allow us to predict other information about that relationship.

Identifying mathematical relationships helps us to make near and far predictions and to formulate generalized rules.



# TIPS 2.0 Lesson or Session Planning Template

Unit #: Day #: (Title)

Grade

<b>Time Bar:</b> Indicate the timing for each section.	<b>Math Learning Goals</b> <ul style="list-style-type: none"> <li>Two or three math learning goals for this lesson.</li> </ul> <b>Underpinning Big Idea(s)</b> <ul style="list-style-type: none"> <li></li> </ul>	<b>Materials</b> <ul style="list-style-type: none"> <li>list materials required</li> </ul>
<b>Minds On...</b>	<b>Identify Grouping → Strategy</b> Get students mentally engaged in the first minutes of the class and establish a positive classroom climate, making every minute of the math class count for every student. <div> <div> <i>Connect to careers</i>  <i>Connect to other strands</i>  <i>Connect to previous lesson</i>  <i>Connect to student interest</i>  <i>Orient students to an activity</i>  <i>Orient students to materials</i> </div> <div> <i>Develop interpersonal skills</i>  <i>Develop learning skills</i>  <i>Introduce a problem</i>  <i>Do a motivating activity</i>  <i>Pose a question</i>  <i>Reflect on prior learning</i>  <i>Connect to previous group of lessons</i> </div> </div>	Plan links between assessment and instruction: <ol style="list-style-type: none"> <li>1) Identify what will be assessed (curriculum expectations or learning skills).</li> <li>2) Choose an appropriate assessment strategy.</li> <li>3) Choose an appropriate assessment scoring tool.</li> </ol>
<b>Action!</b>	<b>Identify Grouping → Strategy</b> <b>Students</b> do mathematics: fearless talking and listening, reflecting, discussing, observing, investigating, representing, reasoning, selecting tools and computational strategies, developing understanding, valuing mathematics, constructing concepts, demonstrating concepts, applying concepts, discovering relationships, exploring, hypothesizing, building algorithmic skills, etc. <b>Teachers</b> plan appropriate student groupings and strategies, pose questions to expose thinking, listen carefully, observe, offer prompts when necessary, respond to provide appropriate scaffolding and challenge, etc. <b>NOTE: Icons in sidebar ( e.g. 🗨️ ) can be copied into your TIPS 2.0 template.</b>	Explicitly label: <ul style="list-style-type: none"> <li>• <b>A for L</b> Assessment <i>for</i> learning (inform future instruction)</li> <li>• <b>A as L</b> Assessment <i>as</i> learning (reflection)</li> <li>• <b>A of L</b> Assessment <i>of</i> learning (student achievement).</li> </ul>
<b>Consolidate Debrief</b>	<b>Identify Grouping → Strategy</b> “Pull out the math,” check for conceptual understanding, and prepare students for the follow-up activity or the next lesson. Often this involves whole class discussion and sharing. Students listen to and contribute to reflections on alternate approaches, different solutions, extensions, and connections. <b>Note:</b> Students should be well prepared to do mathematics individually after the three-part lesson.	🗨️ Explicitly identify planned differentiation of content, process, or product based on readiness, interest, or learning preference in order to work in zone of proximal development; save time; give students choice, Provide hyperlinks to: <ul style="list-style-type: none"> <li>• Rationale/research 🔍</li> <li>• Video 📺</li> <li>• Lesson artefacts 📎</li> <li>• Professional dialogue 🗣️</li> </ul>
<Choose relevant label(s)> Application Concept Practice Differentiated Exploration Reflection Skill Drill	<b>Home Activity or Further Classroom Consolidation</b> Provide meaningful and appropriate follow-up. Choose activities that consolidate understanding, build confidence in doing mathematics independently, help parents see the types of math activities students engage in during class and see connections between the mathematics being taught and life beyond the classroom. Give students some choice through differentiated activities.	Your plan should include activities that are: <ul style="list-style-type: none"> <li>• visual</li> <li>• kinesthetic</li> <li>• auditory</li> </ul>

## Posing Powerful Questions

Lesson Title	Grade/Program
<b>Goals(s) for a Specific Lesson</b> <i>Use the stem "Students will:"</i>	
<b>Curriculum Expectations</b> <i>Highlight parts to be addressed in the lesson (may not be all parts)</i>	
<b>Big Idea(s) Addressed by the Expectations</b>	
<b>Minds On... Sample Question(s)</b> <i>Indicate in brackets the type (open, parallel, other).</i>	
<b>Action! Sample Question(s)</b> <i>Indicate in brackets the type (open, parallel, other).</i>	
<b>Scaffolding Questions</b> <i>(posed to individuals as needed)</i>	
<b>Consolidate/Debrief Sample Question(s)</b> <i>Indicate in brackets the type (open or other)</i>	



## Schedule of Events

### *Monday, August 15<sup>th</sup>*

12:00pm – 1:00 pm	Lunch
1:00pm – 1:30pm	Welcome
1:30 pm - 2:45 pm	<i>PLENARY 1</i> - What's the focus?
2:45 pm – 3:00 pm	Break
3:00 pm – 4:00 pm	<i>PLENARY 2</i> - Responding to Students in the Moment
4:00 pm – 6:00 pm	Networking time
6:00 pm – 7:00 pm	Dinner
7:00pm – 8:30 pm	Breakout 1

### *Tuesday, August 16<sup>th</sup>*

7:30 am – 8:30am	Breakfast
8:30 am – 10:30 am	<i>PLENARY 3</i> - Building Learning Goals and Consolidating Questions
10:30 am – 10:45 am	Break
10:45 am – 12:00pm	Breakout 2
12:00 pm – 1:00 pm	Lunch
1:00 pm- 2:30 pm	<i>PLENARY 4</i> - Responding to Students Over Time
2:30 pm – 2:45 pm	Break
2:45 pm – 4:45 pm	Breakout 3
4:45 pm – 6:00 pm	Networking time
6:00 pm – 7:00 pm	Dinner

### *Wednesday, August 17<sup>th</sup>*

7:30 am – 8:30am	Breakfast
8:30 am – 9:30 am	<i>PLENARY 5</i> – Working with Struggling Students
9:30 am – 9:45 am	Break
9:45 am – 11:15am	Breakout 4
11:15am – 12:00pm	Carousel: Focused Cross-Breakout Session
12:00 pm – 1:00 pm	Lunch
1:00 pm – 2:15 pm	<i>PLENARY 1</i> – What's the focus?
2:15 pm – 2:30 pm	Break
2:30 pm – 3:30 pm	<i>PLENARY 2</i> – Responding to Students in the Moment
3:30 pm – 5:00 pm	Breakout 1
5:00 pm – 6:00 pm	Networking time
6:00 pm – 7:00 pm	Dinner



## Schedule of Events

### *Thursday, August 18<sup>th</sup>*

7:30 am – 8:30 am	Breakfast
8:30 am – 10:30 am	<i>PLENARY</i> 3 – Building Learning Goals and Consolidating Questions
10:30 am – 10:45 am	Break
10:45 am – 12:00pm	Breakout 2
12:00 pm – 1:00 pm	Lunch
1:00 pm – 2:30 pm	<i>PLENARY</i> 4 – Responding to Students Over Time
2:30 pm – 2:45 pm	Break
2:45 pm – 4:45 pm	Breakout 3
4:45 pm – 6:00 pm	Networking time
6:00 pm – 7:00 pm	Dinner
7:00pm – 8:00 pm	<i>PLENARY</i> 5 - Working with Struggling Students

### *Friday, August 19<sup>th</sup>*

7:30 am – 8:30am	Breakfast
8:30 am – 10:00 am	Breakout 4
10:00 am – 10:15 am	Break
10:15 am – 11:30 am	Carousel: Focused Cross-Breakout Session
11:30am- 12:00 pm	Wrap up
12:00pm	Lunch (brown bagged)

*We wish to acknowledge the generous support of:*

*Spectrum Education*

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### Proportional Reasoning:

These sessions will focus both on how to ensure that instruction in proportional thinking throughout the grades is conceptually focused on big ideas and the way one would respond to students both ‘in the moment’ and ‘with time’ while they are engaged in proportional reasoning activities.

These sessions will provide opportunities for participants to:

- explore how using the Big Ideas can make lesson goals and classroom questions more precise and more meaningful;
- practice the use of and development of open questions and parallel tasks to support differentiated instruction in proportional reasoning and allow success for a much broader range of students; and
- consider how important it is to use specific feedback, and not just generic feedback, in instruction.



***Dr. Marian Small***

*Marian Small* is the former Dean of Education at the University of New Brunswick. She has been an author on seven text series, as well as eight books for the NCTM Navigation Series, *Making Math Meaningful to Canadian Students: K-8*, *Big Ideas from Dr. Small: Grades 4-8*, *Grades K- 3*, and *Grades 9 - 12* published by Nelson Education Ltd., and *Good Questions: A Great Way to Differentiate Math Instruction K-8* and *More Good Questions: A Great Way to Differentiate Secondary Math Instruction (for Grades 6 – 12)*, jointly published by Teachers College Press, NCTM and Nelson Canada.



***Amy Lin***

*Amy Lin* is a mathematics consultant for the Halton District School Board in Ontario but is currently on leave and working at the Ministry of Education. Originally a research engineer, she became a high school teacher and was the recipient of the Ontario Teacher Award in 2004. She has authored mathematics textbooks and student resources and has been a lead writer and developer for several Ontario Ministry of Education initiatives. She is the co-author with Marian Small on *Big Ideas from Dr. Small: Grades 9-12* and *More Good Questions: A Great Way to Differentiate Secondary Math Instruction*.

### Algebraic Thinking:

In our plenary sessions we will outline the research we have conducted on students' algebraic thinking, particularly in the domain of linear relations. Our sessions will focus on three important concepts of algebraic thinking:

- generalizations
- multiplicative thinking
- multiple representations

We will engage participants in activities involving linear growing patterns, numeric patterns, graphical representations, and context problems. We will explore the interrelationships among these representations, which we believe is essential to developing a deep understanding of linear relationships. Participants will also examine examples of student thinking (transcripts, video, and student work samples) in order to begin to identify evidence of algebraic reasoning at different levels using supportive frameworks.



*Dr. Ruth Beatty*

Ruth is an Associate Professor at Lakehead University (Orillia) where she teaches the mathematics methods course for Primary/Junior teacher candidates in the Faculty of Education. Her research of how children learn complex mathematical concepts, particularly in the domain of “early algebra”, has resulted in a model of teacher professional development that links research and practice and resulted in a collaborative partnership with the Ministry of Education to produce online learning objects for linear relations <http://www.mathclips.ca>. In addition, Ruth was invited by the International Commission on Mathematics Education to contribute to an international study of technology and mathematics education based on her work utilizing online discourse spaces to support students' collaborative mathematical problem solving.



*Dr. Cathy Bruce*

Catherine D. Bruce, [cathybruce@trentu.ca](mailto:cathybruce@trentu.ca), is an Associate Professor at Trent University, in Peterborough, Ontario, Canada where she teaches mathematics methods courses at the School of Education and Professional Learning. Cathy collaborates with teachers and researchers to engage in, and assess, professional learning models focused on mathematics and technology use, and she researches the effects of these activities on teachers and students. Recent speaking engagements include the Institute of Education at the University of London, AERO, MISA, and the Ontario Education Research Symposium. She is currently working on a federal research grant project (SSHRC) focused on mathematics for young children and the use of video for analysis of teacher and student learning. Her research can be accessed at [www.tmerc.ca](http://www.tmerc.ca).

### *K to Four ... Opening the Door*



*Cassie Medve-Racine*

*Cassie Medve-Racine* is an Elementary Curriculum Consultant with the Simcoe Muskoka Catholic District School Board. Cassie is a writer for the Ministry's CLIPS resource, co-ordinates the board's NTIP program, and regularly facilitates CIL-Ms, TLCPs, and other activities with snappy acronyms. Cassie has completed her M.Ed in Curriculum with a focus on primary math learners. Cassie's math learning will never end and she is excited by the learning opportunity of Math CAMPPP.



*Laurie Moher*

Laurie is currently a Numeracy Consultant, JK-8, for Kawartha Pine Ridge DSB. She served on the Board of Directors for OAME for twelve years and was OAME's NCTM Representative for three years after that. She was a member of the Ministry's Expert Panel for Early Math and a board facilitator for the in-service that accompanied the report. She is excited to join this summer's Math CAMPPP team!



*MaryLou Kestell*

Throughout *MaryLou's* teaching and learning career she has engaged with students and teachers in grades 1 to 12 classrooms. Her dedication to improving engagement in mathematical inquiry has included research studies, serving on Ministry Expert Panels and editing policy documents. After working 7 years at EQAO and 5 years at the Literacy and Numeracy Secretariat, MaryLou retired. Currently she teaches pre-service teachers at OISE and works as a Provincial Math Coach on projects throughout the province.



*Lori Schuyler*

*Lori Schuyler* is currently a Mathematics Resource Teacher K-8 in the District School Board of Niagara. As well as being an experienced classroom teacher, Lori has worked as a math facilitator. In her role as resource teacher she has facilitated collaborative inquiry sessions as well as conducted and supported action research. She has also worked with teams of teachers in the DSBN "SUM" initiative. Lori continues to spend most of her time in classrooms co-teaching, inquiring and marveling at young mathematicians.



### 3 -6: Fishing Buddies



*Cathy Chaput*

*Cathy Chaput* is a grade 4-6 Curriculum Coordinator with the Wellington Catholic DSB. Mathematics is a passion, and she has engaged in this through teaching math in 3 panels, working and learning with teachers using LNS and TIPS resources, and leading TLCP's, PLC's, after school book studies, and summer programs. She was a regional and board trainer for the Junior Numeracy series, is a proud and grateful member of OAME and OMCA, and has presented at OAME math conferences.



*Mike Davis*

An elementary educator for 25 years, *Mike Davis* is a mathematics and numeracy consultant for Halton DSB. He is currently the treasurer for the OMCA. Mike has co-authored a number of mathematical resources for teachers. He was also a provincial writer and facilitator for the Junior Lead Teacher training, and has facilitated all three parts of the AQ course for Primary and Junior Mathematics for York University. He has presented workshops around the province including at OAME and OAME Leadership.



*Gina Micomonaco*

*Gina Micomonaco* is currently a Program Resource Teacher, and was the former Math, Science and Technology Elementary Program Consultant in the York Catholic DSB. In 2008, Gina co-chaired the OAME 2008 conference in York Region. Her past experience includes teaching pre-service education at York University and additional qualifications courses at the University of Toronto. Gina has facilitated many mathematics workshops at both local and provincial levels.



*Krista Sarmatiuk*

Krista Sarmatiuk is the Numeracy Facilitator for the Sudbury Catholic District School Board. She supports math teaching and learning at Grades 3 to 6, including collaborative planning and instruction with teachers, providing job-embedded learning at the classroom level, supporting parent engagement, identifying supports for struggling learners and embedding technology into math instruction. This year, she co-facilitated the Gap Closing Grade 6 Adobe Connect series with Cathy Chaput.

### 5-8: *Math at the Beach*



*Mary Fiore*

*Mary Fiore* is the Mathematics Coordinator, K-12, with the Peel District School Board. Her focus is supporting the teaching and learning of mathematics in her roles of coordinator and instructor for York University. Mary has participated in a variety of writing projects and provincial initiatives. She is currently a CHAMP board member and Vice President of OMCA.



*Sandra Fraser*

*Sandra Fraser* is the principal of a grade 5 to 8 school within the York Region DSB. She has had a wide variety of experiences, which include teaching in all 3 elementary divisions, and serving in various leadership roles at the school, district and provincial level in Assessment, Mathematics, Literacy and Action Research.



*Erik Teather*

*Erik Teather* is a K-8 Mathematics Resource Teacher with the District School Board of Niagara. In this role, he has facilitated collaborative inquiry groups, as well as supported administrators, coaches, teachers and students in their math explorations. Erik taught Grade 7 and 8 for 10 years prior to this role. He has helped write lessons for TIPS4RM and many resources for DSBN, as well as presented at OAME.



*Deb Wines*

*Debbie Wines* is a Curriculum Consultant, K – 8, with the Trillium Lakelands DSB. Her central office role spans the past 6 years, and includes experience in both consulting and coaching where she facilitated professional learning in Literacy, Numeracy and Differentiated Instruction in a range of instructional models. Debbie's provincial roles include the co-facilitation of Math CAMPPP breakout sessions, 2010, and the co-facilitation of the 'Professional Learning for Mathematics Leads and Coaches' sessions this past fall and winter.

## Focused Breakout Sessions

7-10: 9:53



*Paul Alves*

*Paul Alves* is currently the department head of mathematics at Fletcher's Meadow Secondary School in the Peel DSB. Paul has been active on many writing teams as well as provincial initiatives. Paul is currently an OAME board member, president of CHAMP, and a national instructor with Texas Instruments.



*Kyla Kadlec*

*Kyla Kadlec* is a Vice Principal with the Simcoe County DSB. Previously to her administrative role she was a Math Coach for a few years. This is the third year that Kyla is a director on the Board for OAME and is a former President of the local Chapter Mathematic Association for Cottage Country (MAC<sup>2</sup>). For the past several years she has been involved in the Ministry Project CLIPS.



*Todd Malarczuk*

*Todd Malarczuk* has been in Mathematics Education for 12 years across three divisions. He is coming off two years as a Secondary Mathematics Coach for the Halton District School Board and is currently in the mathematics department at Nelson High School in Burlington, ON. He has been involved with numerous district and provincial writing teams and is involved with current Ministry of Education initiatives. He has yet to take a summer to himself, as he always seems to find himself involved with some mathematics' education initiative (and he likes it that way).



*Nancy Snyder*

*Nancy Snyder* is a Student Achievement Consultant Grade 7 - 12 Mathematics, WCDSB, serving in this role for the past 5 years. She has worked on the ministry CLIPS Integer project over the past two years, been a presenter at UW Summer Institutes, Promising Practices Symposium, LMS Regional Conferences, and been a co-writer for OTF Additional Qualifications courses.



### 9-12: Pursuing Broader Perspectives



*Agnes Grafton*

*Agnes Grafton* practices her proportional reasoning skills by balancing her duties as a Secondary Numeracy Consultant for the Brant Haldimand Norfolk CDSB and her role as a Flash programmer for the Ministry's CLIPS project, in a 1:2 ratio. Agnes' twenty-six year educational career also includes working as secondary math teacher, assistant department head and department head.



*Robin McAteer*

*Robin McAteer* has worked as a secondary mathematics and computer science teacher, as well as department head at Sir Robert Borden High School in Ottawa. She loves teaching and learning, and has led many professional development initiatives within her school and board. In her current role as Instructional Coach with the Ottawa-Carleton District School Board, Robin is working collaboratively to foster board-wide assessment practices that empower teachers and promote student learning.



*Cheryl McQueen*

*Cheryl McQueen* is currently the mathematics department head at Glendale High School in the Thames Valley District School Board. She has been a mathematics educator for 26 years, 20 of which have been spent in the classroom and 6 as a Learning Coordinator for Mathematics, grades 7-12. She has also had experience, for a semester, as a part-time math coach. Provincially she has been involved in working on Grade 11 support materials, CLIPS and was the co-president of OMCA.



*Kathy Pilon*

*Kathy Pilon* is a Grade 7 – 12 Numeracy Coach with the Catholic District School Board of Eastern Ontario. Prior to the coaching role, Kathy was the Program Leader for Mathematics at St John CHS in Perth where she taught intermediate and senior level mathematics courses. Kathy continues to be involved with EQAO activities, most recently as part of the Range Finding committee and is the MCIS chair for OAME2012, where she is working with the planning team to host the conference in Kingston.

## Organizers



*Myrna Ingalls  
Education Officer  
Curriculum and Assessment Policy  
Branch  
Ministry of Education*



*Jeffrey Irvine  
Education Officer  
Curriculum and Assessment Policy  
Branch  
Ministry of Education*

### Team Kempenfelt



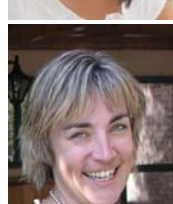
*Kaye Appleby  
GAINS Project Manager*



*Crystal Chilvers  
Upper Grand DSB*



*Suhana Kadoura  
Ottawa-Carleton DSB*



*Shelley Yearley  
Trillium Lakelands DSB*

### Team Nottawasaga



*Chris Atkinson  
Ottawa Catholic School Board*



*Shirley Dalrymple  
formerly York Region DSB*



*Connie Quadrini  
York Catholic DSB*



*Ruth Teszeri  
Halton District School Board*

### Adobe Connect & Video Team



*Irene McEvoy  
formerly Peel DSB*



*Anne Yeager  
formerly Upper Grand DSB*



*Bruce McKay  
formerly Simcoe County DSB*



*Rod Yeager  
formerly Upper Grand DSB*

## Useful Resources



<http://www.edugains.ca>

select MathGAINS from the left side navigation bar



<http://www.edugains.ca/newsite/math/tips.htm>



<http://www.edugains.ca/newsite/math/clips.htm>

<http://www.mathclips.ca/>



<http://eworkshop.on.ca/edu/core.cfm>



Webcasts for Educators

<http://www.curriculum.org/secretariat/archive.shtml>



<http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/capacityBuilding.html>

*Capacity Building Series*



**O.A.M.E.**

*Ontario Association for  
Mathematics Education*

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<http://mathcamppp.ca>







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